

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Douglas McKnight on 09/08/2009.

The application has been amended as follows:

Delete claims 18-20.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 07/31/2006 has been considered by the examiner.

### ***Allowable Subject Matter***

Claims 1-17 are allowed.

The following is an examiner's statement of reasons for allowance:

Independent claims 1 and 10 both define features of classifying pixels of the filtered uncorrected reconstructed image into at least metal, bone, tissue, and air pixel classes to generate a classified image; replacing meta class pixels of the classified image with pixel values of another pixel class to generate a metal free classified image; identifying corrupted regions of original projection data contributing to the pixels of the metal class; replacing the identified corrupted regions with corresponding regions of the model projection data to generate corrected projection data; and reconstructing the corrected projection data into a corrected reconstructed

Art Unit: 2624

image. These features in combination with other features in claims 1 and 10 are not taught or suggested by the art of record.

Claims 2-9 are dependent upon claim 1.

Claims 11-16 are dependent upon claim 10.

Independent claim 17 defines features of a classifying algorithm which classifies pixels of the uncorrected tomographic image at least into metal, bone, tissue, and air pixel classes; a pixel replacement algorithm which replaces pixels of the reconstructed image that are classified into the metal class with pixel values of at least one other class to generate a metal free image; a morphological algorithm which applies prior knowledge to the metal free image to refine classification regions of the metal free image based on known characteristics of subject anatomy; a replacement algorithm which replaces corrupted portions of the projection data which corrupted portions contribute to the pixels of the metal class with corresponding portions of the model projection data to generate corrected projection data, which is reconstructed by the reconstruction processor into a corrected tomographic image.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Murthy et al, U.S.P.N. 6,055,295, see figure 2 and abstract.

Art Unit: 2624

Vafai, U.S.P.N. 5,825,910, see figure 2 and abstract.

Cheng et al, U.S.P.N. 5,909,476, see whole document.

Hsieh, U.S.P.N. 5,416,815, see figure 3 and abstract.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y. Lu whose telephone number is (571)272-7393. The examiner can normally be reached on 9AM -5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on 571-272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tom Y Lu/  
Primary Examiner, Art Unit 2624